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TERTIARY SYPHILITIC EPIDIDYMITIS.

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TERTIARY SYPHILITIC EPIDIDYMITIS.[1]

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FOR a long time tuberculosis and gonorrhœa were the only diseases that were supposed to attack the epididymis, but of late years a certain number of syphilitic manifestations have been proven to occur in this organ, but, as the cases of tertiary syphilitic epididymitis are not of very frequent occurrence, the report of the following case, occurring in the writer's practice, as well as a few remarks regarding the differential diagnosis of this affection, may not be without some interest.

Tertiary syphilitic epididymitis appears from two to twenty years after the primary accident, and appears to attack preferably patients who are in full sexual activity,—that is to say, from thirty-five to forty-five years of age. Now, if sclero-gummous orchitis occasionally occurs as a tertiary symptom, the hereditary tertiary syphilitic epididymitis, on the other hand, appears to be exclusively confined to cases of acquired syphilis.

A certain number of circumstances appear to cause it to occur, and since the time of the illustrious Ricord observers have recognized the influence of venereal excess on the development of genital syphilis. A large number of cases reported in an excellent monograph by Delahaye appear in every way to favor this assertion. Traumatism, gonorrhœa, and primary inflammatory conditions produce a *locus minoris resistentiæ* in the epididymis. In the same way carcinoma has been noticed to follow a syphilitic sarcocele, in the same manner as we notice that in

[1] Read at the Surgical Section of the Suffolk District Medical Society, January 6, 1897.

many of the cases of gonococcus infection or traumatism has favored or awakens anew the syphilitic diathesis.

The case in question was that of a single gentleman, a merchant of some thirty-three years of age, actively engaged in a large business. He was a very well educated man, and took extremely good care of himself in every respect. He called on me one day, saying that for some two weeks past he had noticed a small swelling at the bottom of the left testicle, and that it gave him a feeling of weight and tension in the organ, although no actual pain was present, either spontaneous or when the organ was pressed upon.

Upon examination the scrotum appeared in every way normal; the left testicle, however, appeared decidedly lower than the right. By palpation I discovered a small, round, hard tumor, about the size of a cherry, situated on the head of the epididymis. This tumor was in no way painful when squeezed between the thumb and index-finger; it was spherical and presented a few inequalities over its surface. The scrotum was normal, and no change could be detected in the spermatic cord; prostate normal. The patient was questioned closely regarding any antecedent trouble of venereal origin, but the only thing that was admitted was a gonorrhœa contracted some six or seven years previously, and of which there remained no trace. The patient admitted that he was cohabiting with a woman whose husband had had one of his testicles removed for tuberculosis some years previously. Thinking that I might possibly be in presence of a primary genital tuberculosis, contracted from coitus, I ordered a suspensory bandage and the application night and morning of belladonna ointment, which was used as a palliative treatment, without any hope of curing the disease, and the patient ordered to return in a week.

He did so, and at this time I found the tumefaction slightly increased in size. I then told him that, as he had never had syphilis according to his own statement, I considered the growth, although not characteristic, as one produced by tuberculosis, and advised immediate removal of the testicle, which, by the way, I must here state, was normal in every way. Its characteristic sensibility was present, it was of normal consistency, and, in fact, in every way apparently free from any pathological change.

When told that he must undergo this operation, as well as the loss of this organ, the patient said that he did remember that some

five years ago he had had a sore on his penis, and a few weeks later he had a sore throat and a slight eruption over the thorax and back, with loss of hair, all of which symptoms had disappeared and had never returned since. He also stated that he had consulted a physician at that time, and was given mercury in the form of pills, which he took for some three weeks' time and had never taken any since.

I carefully examined the patient from head to foot, and found all the viscera absolutely normal, and the patient's condition in every respect excellent. Blood examination showed hæmoglobin was 98 per cent., and the blood count showed 4,300,000 red blood-corpuscles to the cubic millimetre. The mouth and teeth were in perfect condition, and so, believing that, on account of the very imperfect specific treatment which he had undergone, this was a tertiary manifestation of his syphilitic diathesis, and that it was necessary to act immediately, he was placed on protiodide of mercury, five centigrammes thrice daily, and ten centigrammes of iodol thrice daily. The patient was seen once a week for four weeks, after which time the tumor had become so reduced in size that only a slight induration of the epididymis was noticed.

Since taking the above notes, in February, 1896, the patient has again been submitted during the month of September to the same mixed treatment, and, although no other manifestation of the disease has made its appearance, he has been ordered to return in the spring in order to receive more specific treatment.

Regarding the symptoms of tertiary syphilitic epididymitis, it appears that the affection generally begins in a subacute form, with pains of variable intensity, either spontaneous or produced by pressure. In other cases, as in the one here reported, the pain or feeling of weight only occurs after the patient is tired, and sometimes the feeling of weight and dragging sensation is only present, pain being entirely absent. As in all neoplasms due to tertiary syphilis, the growth may occur without any symptoms whatever, the patient only noticing it after it has attained a certain size, as in one case mentioned, or after the products of the tumor have been evacuated through the skin.

In the beginning the scrotum does not present any trace of inflammation, and the soft parts may be pushed over the tumefaction with ease. The vaginal membrane is occasionally the

seat of a liquid collection, and the latter has sometimes been the means of preventing a thorough and complete examination of the epididymis and testicle. If the testicle is palpated, the organ will be found of normal consistency, without any point of induration or any change in size, and its characteristic sensibility will also be found normal. The spermatic cord is also found healthy, although some cases of localized gummata have been reported as occurring in this organ, although in the cases of tertiary epididymitis that have been reported the former do not appear to be present during the evolution of the latter affection.

Let us now consider the syphiloma of the epididymis itself. It may invade the caput or a part of the epididymis, but usually it is diffused, involving the entire organ, in the form of a tumefaction, having a firm and resistant consistency. The tumor is irregular, and in some cases palpation will show several indurated points in the caput, corpus, and tail of the epididymis, or both segments of the organ may be included in a single node. The usual size of these nodes of induration vary from that of a small nut to an English walnut. When the tumor does not invade the entire epididymis, it is sometimes the caput and sometimes the tail which is the seat of the disease, but generally—and Delahaye insists on this fact—the organ is entirely invaded. An important fact to mention is the great distinctness with which the healthy testicle may be isolated from the indurated points in the epididymis, and those adhesions which are found in gonorrhœal epididymo-orchitis are entirely wanting.

The last proper character of this type of epididymitis, and which appears to have a certain clinical value, is that the lesion is always unilateral. In nine cases mentioned by Delahaye the disease was only found in one epididymis, but Allen mentions two cases of bilateral epididymitis occurring eight and ten years after the chancre, but the tertiary state of these patients was not confirmed by any other syphilitic accident present at the same time as the epididymitis.

When the disease under consideration is acute, the patient will immediately seek medical advice, and, if he is found syphilitic, a proper treatment will be applied; but it is not the same

thing when the tumor has been present and has slowly and insidiously evoluted. The patient does not notice the affection for the simple reason that he suffers in no way from it, and it is only after a long time from the commencement that a fistula occurs, and the patient will then seek a surgeon.

Some cases reported have demonstrated that these indurations in the epididymis evolute as all tertiary growths, either towards sclerosis or towards gummous degeneration. In one case the patient had had his tumor for six months, and palpation gave a feeling of a softened gumma. The duration of the disease may consequently be quite long, and the mixed treatment followed for a few months will finally reduce the tumor to the size of a small indurated nodule.

The persistence of a sclerosis nodule after disappearance of the syphiloma is, however, a cure, the second manner in which a tertiary epididymitis may end. In other cases an induration may undergo the degenerative evolution of a gumma. The tumor loses its firm consistency and becomes the seat of a pseudo-fluctuation and breaks down. Soon adhesions are formed with the neighboring tissues, the scrotum becomes violet in color and ulcerated, and a fistula appears at the lower part or the back part of the scrotum, from the orifice of which a liquid flows out, which in aspect very much resembles a solution of gum.

To sum up, we may say that the beginning is generally subacute. The induration is irregular, and often the entire epididymis is invaded, although without adhesions to the testicle. There is a tendency to sclerosis or to the formation of gummata. These are the symptoms that I think we may attribute to tertiary syphilitic epididymitis.

Regarding the pathology of tertiary epididymitis, not much can be said, because so far no case of this disease has been examined microscopically. However, it is probable that in an advanced condition it would present the same characters as found in a gumma.

According to Allen, a nodule probably represents small gumma disseminated throughout the organ, which gives to the

examining hand the sensation of an irregular body. It may also take on the form of an infiltration or gummatous hyperplasia of a diffused type, and these form large masses, which may be true tumors, and which will finally undergo a sclerous change, and the organ will then be found hard and fibrous.

Regarding the differential diagnosis, tertiary epididymitis will certainly present much difficulty, and it is certainly important, on account of the prognosis and for the treatment, to arrive at a definite conclusion regarding the nature of the affection.

In the first place, secondary epididymitis is in some ways similar to the tertiary form; the tumor is distinctly isolated from the testicle, the pains are subacute on pressure, and its consistency is firm, and the tumor is lumpy. There are some signs which will permit certainly of a differential diagnosis, because in secondary epididymitis the lesion is limited to the caput of the organ, and out of eighty-six cases collected by Cuilleret, the tumefaction, including the entire organ, was not met with in any case, while in the tertiary type Delahaye found the lesions were diffused in five out of nine cases.

On the other hand, when we are dealing with a secondary epididymitis, both organs are often the seat of the trouble. Dron found the affection on both sides in seven cases out of fourteen; Balme five times out of twenty-two cases; Telemat, three times out of eight, and Cuilleret, six times out of twelve. In one of the forms of the disease, the commencement is often insidious, while the other is accompanied by acute and painful symptoms. The tertiary syphiloma does not have the induration similar to a pea or pill, and as if set into the caput of the epididymis, which is characteristic in the secondary variety. On the contrary, the indurated nodes are often multiple, much larger than in the secondary form and the entire epididymis or, at least, the two neighboring segments of the organ are involved.

In the therapeutical point of view, there seems also to be a difference between these two types, and, according to Dron, the secondary resists for a long time specific treatment, and especially iodide of potassinm, especially when the latter is given alone; and Mauriac is also of this opinion. It is not less true

that the diagnosis is sometimes very delicate, especially when we find ourselves in presence of one of the transitional forms—that is to say, between the secondary and tertiary period,—occurring several years after infection; but in this case the existence or the absence of other tertiary manifestations will settle the question as to the diagnosis.

In gonorrhœal epididymitis, the beginning is subacute, and the division of the lesions characteristic of the tertiary manifestation may sometimes be taken for an epididymitis due to the gonococcus, but the intensity of the pain, the fever, the external signs of inflammation, induration of the epididymis, which is firmly bound to the testicle, the frequency of inflammation of the vaginal membrane, and especially the presence of a discharge from the urethra, will assure the diagnosis in the majority of cases. But, if we are dealing with one of the acute and subacute forms described by Angagneur and mentioned by Delahaye, if the discharge is slight or has disappeared for some time, the problem is far more delicate. And, nevertheless, in cases of latent and chronic gonorrhœa, the induration becomes localized in the tail of the epididymis, and careful palpation will show the presence of adhesions with the testicle, while in tertiary epididymitis the testicle and epididymis are distinctly isolated one from the other. And, lastly, the antecedents of the patient and the history of a former primary sclerosis, the presence of other tertiary symptoms, as well as the result of treatment, will confirm the diagnosis.

Tubercular epididymitis may have an acute or chronic course, and, as in the disease under consideration, the softened contents of the foci break down and are evacuated through the skin of the scrotum, leaving behind one or several fistulæ.

If we are dealing with a case in which the scrotum is healthy, the indurations of a tubercular epididymitis are less well marked and less distinct than in tertiary syphilis. These bosses are often very large, of unequal consistency, and less rounded. Frequently the testicle and the cord are often the seat of disease, and the prostate and the seminal vesicles may also be involved in a tubercular process before the epididymis is

attacked. Rectal examination is consequently decidedly indicated, in order to make a diagnosis, and often the examination of the lungs will reveal symptoms of pulmonary tuberculosis.

If all these signs are wanting, the only thing that remains for us to try is the antisyphilitic treatment; iodide of potassium and mercury will never have any action on tuberculosis, while the contrary is true for tertiary lesions.

If we are dealing with a case presenting a fistula, which is present at the lower or posterior aspect of the scrotum, with an indurated epididymis adherent to the neighboring parts, the diagnostic means before mentioned are still useful in these cases. On the other hand, the depression of the external orifice of the fistula, the characters of pus containing cheesy matter, and, lastly, bacteriological and microscopical examination of the matter discharged will be sufficient to indicate the tubercular nature of the affection.

Malignant tumors may attack the epididymis as well as the vas deferens. These neoplasms are very numerous, such as sarcoma, diffused or cystic epithelioma, enchondroma, etc. But it is extremely infrequent that a malignant growth begins in the epididymis, and in the large majority of cases the testicle is the first diseased.

In cases of cancer of the epididymis, the pains are lancinating and spontaneous; the age of the patient, the usually large size of the tumor, the rapid growth of the latter and the condition of the lymphatic glands, and especially the absence of tertiary symptoms present at the same time, as well as the uselessness of the iodides, will allow us to eliminate the diagnosis of syphilis.

Regarding cysts of the epididymis, we know that they are often met with on the convex aspect and on the free end of the caput of the epididymis, and occasionally near the tail of the organ. In the beginning, when the cyst is only the size of a bean, its consistency may appear hard, and transparency and fluctuation will not as yet appear. Its indolence and localization will, however, allow us to make out its nature. Later on, when it is larger, it will be no longer hard to the feel, and in many cases fluctuation will be made out, but we must always remem-

ber the possible presence of a gumma undergoing softening, and specific treatment should be tried. Puncture may, perhaps, be recommended, but it is not perfectly legitimate, excepting when the treatment and the absence of tertiary symptoms will have allowed us to eliminate the possibility of the lesion being of a syphilitic nature. These considerations are also applicable to spermatocele.

As to gumma of the scrotum and vaginal membrane we will not insist, because an error in the diagnosis in this case is not a bad point for the patient, the treatment being the same, and, for that matter, the ease with which the tumor slides over the underlying tissues in both cases; the frequency of the vaginitis in the second will be sufficient for us to make a localization of the new growth.

The prognosis is excellent in the disease under consideration, and all trace, with the exception of a slight induration, will disappear after a certain time, when proper therapeutic measures have been employed and for a sufficiently long time. It is useless for the writer to insist upon the treatment of this lesion; it naturally requires a specific one, and, as each one has his own methods of prescribing mercury and the iodides, it is unnecessary to insist upon any detail here; suffice it to say that the mixed treatment is considered as by far the best by the writer, and that this should be persisted in for a sufficiently long time.